

What is claimed is:

1. A portable foam generator to be carried by a person applying a fluid foam, comprising:

an airtight reservoir for containing a foamable liquid; the reservoir having an upper end, a lower end, and a foamable liquid maximum fill line intermediate the upper end and the lower end of the reservoir;

a pressurizing means for introducing pressurized air into the reservoir;

a discharge tube for foaming the foamable liquid and discharging fluid foam made from the foamable liquid from the reservoir; the discharge tube having venturi opening means above the foamable liquid maximum fill line for introducing pressurized air within the reservoir into the discharge tube to mix with the foamable liquid, as the foamable liquid passes through the discharge tube, to form the fluid foam that is discharged from the reservoir by the pressurized air through the discharge tube; the total cross sectional area of the venturi opening means in the discharge tube being between 0.01% and 50% of the total transverse cross sectional area of the tubular passage in the discharge tube; and

a hand-held foam dispensing means connected to the discharge tube for controlling the discharge of and dispensing the fluid foam delivered from the discharge tube.

2. The portable foam generator according to claim 1, wherein:
the venture opening means comprises a single venturi opening in the discharge tube.

3. The portable foam generator according to claim 1, wherein:
the venture opening means comprises a plurality of venturi openings in the discharge tube.

4. The portable foam generator according to claim 1, wherein:
the venture opening means comprises two diametrically opposed and aligned venturi openings in the discharge tube.

1004403 3304

5. The portable foam generator according to claim 1, wherein:
the discharge tube is flexible and weighted adjacent an inlet opening at the bottom end of the discharge tube so that in use the discharge tube continues to be immersed within the foamable liquid within the reservoir when the reservoir of the portable foam generator is tilted.

6. The portable foam generator according to claim 1, wherein:
the pressurizing means discharges the pressurized air into the reservoir below the foamable liquid maximum fill line and includes a check valve to prevent the foamable liquid from flowing back into a pressurized air outlet of the pressurizing means that discharges the pressurized air into the reservoir.

7. The portable foam generator according to claim 1, wherein:
the hand-held foam dispensing means is mounted directly on the reservoir so that in use the reservoir is carried with the hand-held foam dispensing means.

8. The portable foam generator according to claim 7, wherein:
the air pressurizing means comprises a hand-operated air pump mounted on the reservoir.

9. The portable foam generator according to claim 7, wherein:
the air pressuring means comprises a source of pressured air connected to the reservoir by an air delivery line.

10. The portable foam generator according to claim 1, wherein:
the reservoir is mounted in a harness to be carried on a person's back; and the hand-held foam dispensing means is connected to the reservoir through a fluid foam delivery line.

11. The portable foam generator according to claim 1, wherein:
the hand-held foam dispensing means includes a foam expansion chamber for further mixing of air in the fluid foam delivered from the discharge tube with the fluid

foam delivered from the discharge tube to effect an increase in a volumetric expansion of the fluid foam.

12. The portable foam generator according to claim 11, wherein:

the foam expansion chamber has an interior transverse cross section; the expansion chamber has a fluid foam inlet tube for introducing the fluid foam from the reservoir into the foam expansion chamber; the fluid foam inlet tube has a smaller outer transverse cross section than the interior transverse cross section of the expansion chamber; a portion of the fluid foam inlet tube within the foam expansion chamber has at least one venturi opening in a tubular sidewall of the fluid foam inlet tube whereby as the fluid foam passes from the reservoir into the expansion chamber through the fluid foam inlet tube a portion of the fluid foam within the foam expansion chamber is drawn back into the fluid foam inlet tube to further agitate the fluid foam and further increase the volumetric expansion of foam the fluid foam dispensed.

13. A method of forming and dispensing a fluid foam, comprising

providing a portable foam generator to be carried by a person; the portable foam generator having an airtight reservoir for containing a foamable liquid; the reservoir having an upper end, a lower end, and a foamable liquid maximum fill line intermediate the upper end and the lower end of the reservoir; the portable foam generator having a pressurizing means for introducing pressurized air into the reservoir; the portable foam generator having a discharge tube for foaming a foamable liquid and discharging fluid foam made from a foamable liquid from the reservoir; the discharge tube having venturi opening means above the foamable liquid maximum fill line for introducing pressurized air within the reservoir into the discharge tube to mix with a foamable liquid, as the foamable liquid passes through the discharge tube, to form a fluid foam that is discharged from the reservoir by the pressurized air through the discharge tube; the total transverse cross sectional area of the venturi opening means in the discharge tube being between 0.01% and 50% of the total cross sectional area of the tubular passage in the discharge tube; the portable foam generator having a hand-held foam dispensing means connected to the discharge tube for controlling a discharge of and dispensing a fluid foam delivered from the discharge tube;

adding a foamable liquid to the reservoir of the portable foam generator;
pressurizing the reservoir; and

opening a valve in the hand-held foam dispensing means to cause the foamable liquid within the reservoir to be discharged through and formed into a fluid foam within the discharge tube and be dispensed from the hand-held foam dispensing means as a fluid foam.

14. The method of forming and dispensing a fluid foam according to claim 13, wherein:

the volume of the fluid foam dispensed relative to foamable liquid is between 6 to 1 and 20 to 1.

15. The method of forming and dispensing a fluid foam according to claim 14, wherein:

the portable foam generator is operated with the reservoir maintained at an average pressure between 15-psi gauge and 40-psi gauge.

16. The method of forming and dispensing a fluid foam according to claim 13, wherein:

the portable foam generator is operated with the reservoir maintained at an average pressure between 15-psi gauge and 40-psi gauge.

17. A method of controlling pests, comprising:

preparing a foamable liquid pesticide comprising a pesticide that is non-repellant to a selected type of pest and a foaming agent adjuvant that is non-repellant to the selected type of pest;

forming a fluid foam pesticide from the foamable liquid pesticide; and

dispensing the fluid foam pesticide at a location infested with the selected type of pest.

18. The method of controlling pests according to claim 17, wherein:

the foaming agent adjuvant is nonionic.

19. The method of controlling pests according to claim 18, wherein:
the foaming agent adjuvant comprises in weight percent per each kilogram of
water:

coconut fatty acid	20-30
glycol ether EB	10-20
sodium lauryl sulfate	5-20
ethoxylated fatty acids	
and mineral oils	5-20
hexylene glycol	0.5-20
denatured alcohol	0.001-20
lorol C8-10	0.01-15
disodium laureth	
sulfosuccinate	0.01-10.

20. A foamable liquid pesticide, comprising:
a pesticide that is non-repellant to a selected type of pest and a foaming agent
adjuvant that is non-repellant to the selected type of pest.

21. The foamable liquid pesticide according to claim 20, wherein:
the foaming agent adjuvant is nonionic.

22. The foamable liquid pesticide according to claim 21, wherein:
the foaming agent adjuvant comprises in weight percent per each kilogram of
water:

coconut fatty acid	20-30
glycol ether EB	10-20
sodium lauryl sulfate	5-20
ethoxylated fatty acids	
and mineral oils	5-20
hexylene glycol	0.5-20
denatured alcohol	0.001-20
lorol C8-10	0.01-15
disodium laureth	
sulfosuccinate	0.01-10.